ESPCP GENERAL NOTES:

The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to, or concurrent with, land disturbing activities.

Erosion control measures will be maintained at all times. If full implementation of the approved plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source.

PLAN ALTERATIONS

The Erosion Sedimentation and Pollution Control Plan (ESPCP) is provided by the Department. It addresses the staged construction of the project based upon common contruction methods and techniques. If the Contractor elects to alter the stage construction from that shown in the plans or utilize construction techniques that render this plan ineffective, the Contractor shall revise the plans in accordance to Special Provision 161 of the contract.

The Contractor, the Certified Design Professional and the WECS shall carefully evaluate this plan prior to commencing land disturbing activities. A major modification or deletion of structural BMP's with a hydraulic component requires a formal revision of the ESPCP and the signature of a GSWCC level II-certified design professional. Additional BMP's may be added per Special Provision 161-Control of Soil Erosion and Sedimentation.

TEMPORARY MULCHING

EPD General Permit GAR 100002 requires "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding." - However, the Department typically requires disturbed areas to be stabilized every 7 days. The construction documents, special provisions, or Specification may require mulching more often than 7 days.

VEGETATION AND PLANTING SCHEDULE

All temporary and permanent vegetative practices including plant species, planting dates, seeding fertilizer, lime and mulching rates for this project can be found in section 700 of the current edition of the Department's specifications and other applicable contract documents, special provisions, or landscaping plans.

SEQUENCE OF MAJOR ACTIVITIES

Phase 1: This phase is for the installation of all perimeter silt fence (Sd1) during clearing and grubbing operations. J-hooks will be placed at 50 feet intervals to trap sediment and force runoff through the silt fence. Retrofit structures (Rt) with filter stone will be placed at the inlets to all existing pipes and inlet sediment traps (Sd2-F) will be installed at existing median inlet locations. Construction exits (Co) will be installed by the Contractor where appropriate and necessary to prevent tracking and dust generation. Temporary vegetative measures (Ds1 and Ds2) as well as dust control (Du) will be applied throughout this stage.

Phase 2: This phase is marked by the installation of all intermediate BMP's associated with the proposed roadway improvements. During roadway grading operations, erosion control matting (Mb) will be placed on all 2:1 fill slopes. Temporary vegetative measures and dust control will continue throughout this phase.

Phase 3: This stage is marked by the removal of all temporary BMP measures once permanent vegetation (Ds3) has been established and the site is fully stabilized. All permanent BMP measures, such as all inlet and outlet protection and permanent matting, will remain after the project is complete.

PETROLEUM STORAGE, SPILLS AND LEAKS

The plans provided herein do not anticipate the storage of petroleum products onsite. The Contractor shall at a minimum provide an action plan and keep the necessary materials onsite for the capture and disposal of any petroleum product leaks or spills associated with the servicing, refueling or operation of any equipment utilized in the work. A copy of the action plan shall be submitted to the Project Engineer and maintained on the project site. All ppersonnel operating or servicing equipment shall be familiar with this plan. The Contractor shall not park, refuel, or maintain equipment within stream buffers.

If the Contractor elects to store petroleum products on the site, the contractor shall prepare an ESPCP addendum that addresses the additional BMP's needed for onsite storage and spill prevention for petroleum products. This plan shall be prepared by a Certified Design Professional as required by GAR100002 for inclusion with these plans. The Contractor's attention is specifically directed to Standard Specification 107 - Legal Regulations and Responsibilities to the public for additional requirements.

SOIL SERIES INFORMATION

17.5% DrB2 - Davidson gravelly loam, 2 to 6 percent slopes, eroded
63.9% DrC2 - Davidson gravelly loam, 6 to 10 percent slopes, eroded
10.0% MhB2 - Madison gravelly fine sandy loam, 2 to 6 percent slopes, eroded
8.5% MhC2 - Madison gravelly fine sandy loam, 6 to 10 percent slopes, eroded

SOIL RATINGS DESCRIPTION

The ratings in this interpretation indicate the hazard of soil loss from unsurfaced roads and trails. The ratings are based on soil erosion factor K, slope, and content of rock fragments.

The ratings are both verbal and numerical. The hazard is described as "slight," "moderate," or "severe." A rating of "slight" indicates that little or no erosion is likely; "moderate" indicates that some erosion is likely, that the roads or trails may require occasional maintenance, and that simple erosion-control measures are needed; and "severe" indicates that significant erosion is expected, that the roads or trails require frequent maintenance, and that costly erosion-control measures are needed.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified aspect of forestland management (1.00) and the point at which the soil feature is not a limitation (0.00).

SOIL RATINGS DESCRIPTION - CONT'D

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

POST-CONSTRUCTION BMP'S

All permanent, post-construction BMP's are shown in the construction plans and in the ESPCP plan. The post-construction BMP's for this project includes permanent vegetation, permanent slope drains and/or flumes, rip-rap at pipe outlets for velocity dissipation and outlet stabilization, vegetated swales/ditches where practical, channels/ditch stabilization with Turf Reinforcing Mats, rip-rap, and concrete ditch lining where necessary. The post-construction BMP's will provide permanent stabilization of the site and prevent accelerated transportation of sediment and pollutants into receiving waters.

SILT FENCE INSTALLATIONS WITH J-HOOKS AND SPURS

Silt fence should never be run continuously. The silt fence should turn back into the fill or slope to create small pockets that trap silt and force stormwater to flow through the silt fence. This technique, or configuration, is commonly referred to as J-Hooks or spurs. The J-Hooks shall be utilized on all silt fences that are located around the perimeter of the project and along the toe of embankments or slopes. The J-Hooks shall be spaced in accordance with Typical Location Details for silt fences/baled straw. Spacing for J-Hooks shall not be less than 50 feet except as noted. Silt fences that are near the outlet of culverts, cross drains, and storm drains shall have a minimum of three (3) J-Hooks on both sides of the structure at spacing not to exceed 30 feet. J-Hooks shall be paid for as silt fense items per foot. All costs and other incidental items are included in cost of installing and maintaining the silt fence.

MAINTENANCE AND STABILIZATION MEASURES

See Special Provision 161 and 700 and other contract documents for maintenance and stabilization measures.

WASTE DISPOSAL

Where attainable, locate waste collection areas, dumpsters, trash cans, and portable toilets at least 50 feet away from streets, gutters watercourses and storm drains. Secondary containment shall be provided around liquid waste collection areas to minimize the likelihood of contaminated discharges. The Contractor shall comply with the applicable state and local waste storage and disposal regulations and obtain the necessary permits. Solid materials, including building materials, shall not be discharged to Waters of the State, unless authorized by Section 404 Permit.

INSPECTIONS

All Inspections shall be documented on the appropriate Department Inspection forms. See Special Provision 167 and other contract documents for Inspection requirements. These Inspections shall continue until the Notice of Termination (NOT) is submitted.

Failure to perform Inspections as required by the contract documents and the NPDES permit shall result in the cessation of all construction activities with the exception of Traffic Control and Erosion Control. Continued failure to perform Inspections shall result in non-refundable deductions as specified in the contract documents.

By agreement with Georgia EPD, the Department's Project Engineer will be responsible for the seven day Inspections for new BMP Installations.

NON-STORM WATER DISCHARGES

Non-storm water discharges defined in Part III.A.2 of the NPDES Permit will be identified after construction has commenced. These discharges shall be subject to the same requirements as storm water discharges required by the Georgia Erosion and Sedimentation Control Act, the NPDES Permit, the Clean Water Act, The Manual for Erosion and Sediment Control in Georgia, Department Standards, and contract documents.

DE-WATERING ACTIVITIES AND USE OF PUMPS

Any pumped discharge from an excavation shall be routed through an adequately sized sediment basin, silt filter bag or shall be treated equivalently with suitable BMP's. The Contractor shall ensure the post BMP treated discharge is sheet flowing. Failure to create sheet flow will obligate the contractor to perform water quality sampling of their pumped discharges. The Contractor shall prepare sampling plans in accordance with the current GAR 100002 NPDES permit utilizing a certified Design Professional. No separate payment will be made for water quality sampling of pump discharges.

OTHER CONTROLS

The Contractor shall follow this ESPCP and ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.

The Contractor shall control dust from the site in accordance with Section 161 of the current edition of the Department's Specifications.

SEDIMENT STORAGE

The following table summarizes the required and available sediment storage for every outfall on this project. The Contractor shall provide and maintain the storage volumes for the BMP's specified in this table.

	LOCATION	Outfall ID	Total Drainage area (acres)	Disturbed area (acres)	Required Sed. Storage Volume (cy)	Total Storage Vol. Provided (cy)	Retrofit Rt		Check Dam Cd		Inlet Sed. Traps Sd2-F	
							# of Rts	Total Volume	# of Devices	Total Volume	# of Devices	Total Volume
*	31+14 RT SR61	1	1.76	0.125	8.4	8.4	-	-	-	-	1	8.4
*	34+17 RT SR61	1	0.28	0.0	0.0	0.0	-	-	-	-	1	0.0
	26+37 RT SR61	2	1.30	0.125	87.1	87.1	1	87.1	-	-	-	87.1
	32+45 RT SR61	1	1.88	0.395	126.0	128.0	1	128.0	-	-	-	128.0
	12+50 LT S CARROLL RD	1	2.53	0.125	170.0	170.0	1	170.0	-	-	-	170.0
	TOTAL	-	7.75	0.97	391.5	393.5	3	385.1	-	-	2	393.5

Sediment basins will not be utilized on this project given the limited available area of this project.

* STA 31+14 RT-THIS BMP HAS SEDIMENT STORAGE TO ACCMMOMDATE THE DISTURBED AREA ONLY. GIVEN THE SMALL AMOUNT OF SOIL DISTURBANCE IN THIS AREA AND THE DESIGNER'S DESIRE NOT TO CREATE ADDITIONAL AND UNNECESSARY DIRBANCE. THIS BMP WILL SUFFICE.

STA 34+17 RT-ALTHOUGH NO SEDIMENT STORAGE IS ANTICIPATED AT THIS SEDIMENT TRAP LOCATION, IT IS LISTED AND SHOULD BE INSTALLED AS A PRECAUTION.

1. THE FLOW CHARACTERISTICS OF THE PIPE AT FULL FLOW INCLUDING PIPE DIAMETER ARE AS FOLLOWS:
   Sta 32+45 RT SR 61
   PIPE DIAMETER ____ 3.5'
   FLOW RATE ____ 16.2 CFS
   VELOCITY ____ 15 FPS
   TAILWATER CONDITION ____ TW<0.5 Do
2. THE DIMENSIONS OF THE APRON ARE AS FOLLOWS:
   LA ____ 30 FT
   WI ____ 34'
   W2 ____ 12'
   D50 ____ 1.14'
   DEPTH ____ 3'

1. THE FLOW CHARACTERISTICS OF THE PIPE AT FULL FLOW INCLUDING PIPE DIAMETER ARE AS FOLLOWS:
   Sta 12+50 RT S.CARROLL RD.
   PIPE DIAMETER ____ 3.5'
   FLOW RATE ____ 12.2CFS
   VELOCITY ____ 10.4 FPS
   TAILWATER CONDITION ____ TW<0.5 Do
2. THE DIMENSIONS OF THE APRON ARE AS FOLLOWS:
   LA ____ 54 FT
   WI ____ 26'
   W2 ____ 12'
   D50 ____ 0.64'
   DEPTH ____ 1.5'

Structure ID A-3
1. Drainage area = 0.013 ac
2. Required sediment storage = 67 cy/ac * drainage area
   Required sediment storage = 67 cy/ac * 0.13 ac
   Required sediment storage = 8.4 cy = 470 cf
3. Assume excavation depth (minimum of 1.5 ft) = 1.5 ft
4. Assume slope of sides (shall not be steeper than 2:1) = 2:1
5. Determine required surface area
   SAmin = Required sediment storage / excavation depth
   SAmin = 227cf / 1.5 ft
   SAmin = 151 sf
6. Assume shape of excavation and determine dimensions. (A rectangular shape with 2:1 length to width ratio is recommended.)
   Shape: Rectangular
   Dimensions: L = 17 ft W = 9 ft diameter (if applicable) = NA ft

THIS PROJECT DOES NOT REQUIRE AN NOI.

GPLN

Hatch Mott MacDonald
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GSAP GRESHAM SMITH AND PARTNERS

REVISION DATES
09/07/12

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
PROGRAM DELIVERY

BMP GENERAL NOTES

SR 61 AT CS841/S CARROLL RD
SAFETY IMPROVEMENT PROJECT

DRAWING No. 51-001